EDUCATION FOR ALL

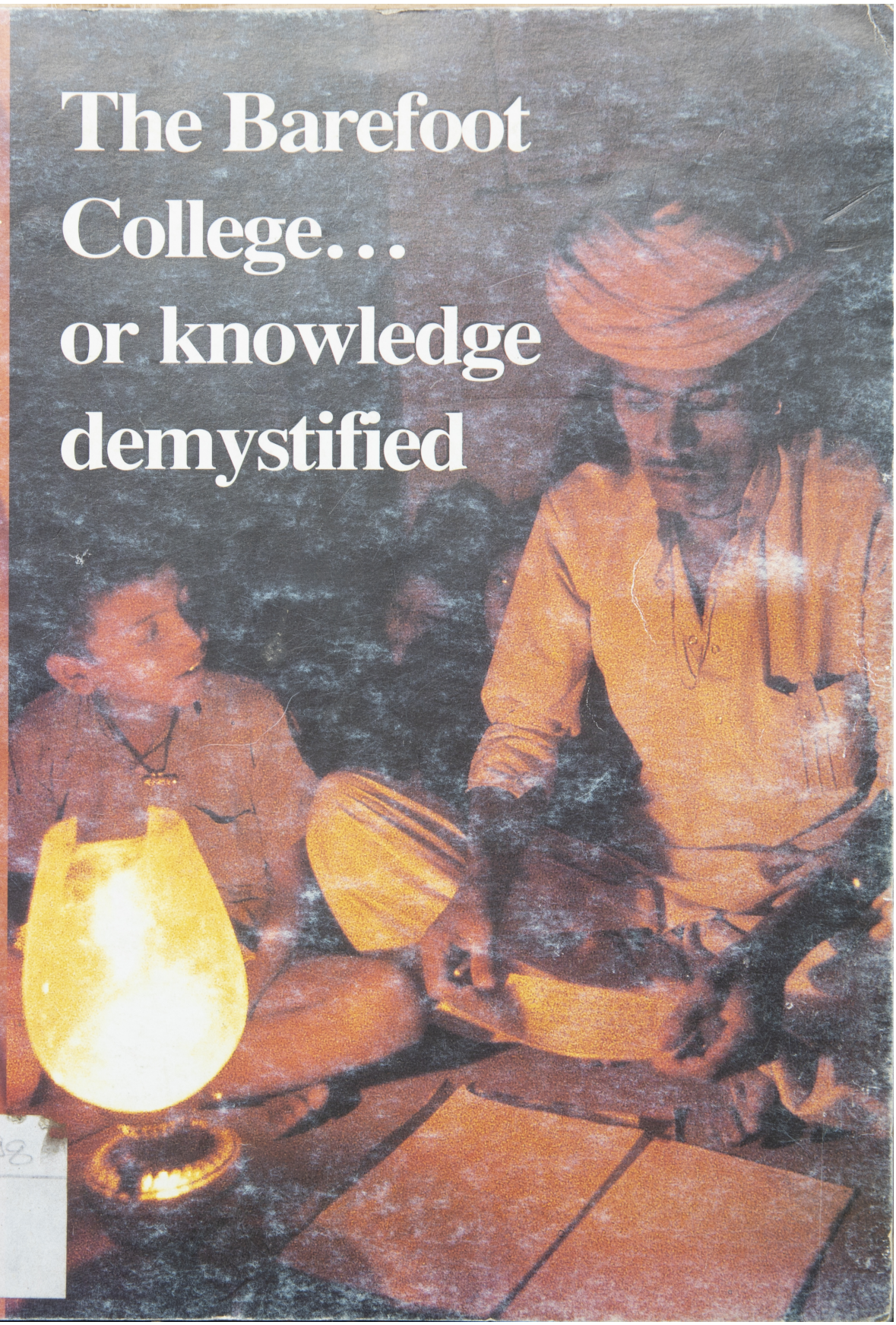
Making it work

11

INNOVATIONS SERIES

The Barefoot College... or knowledge demystified

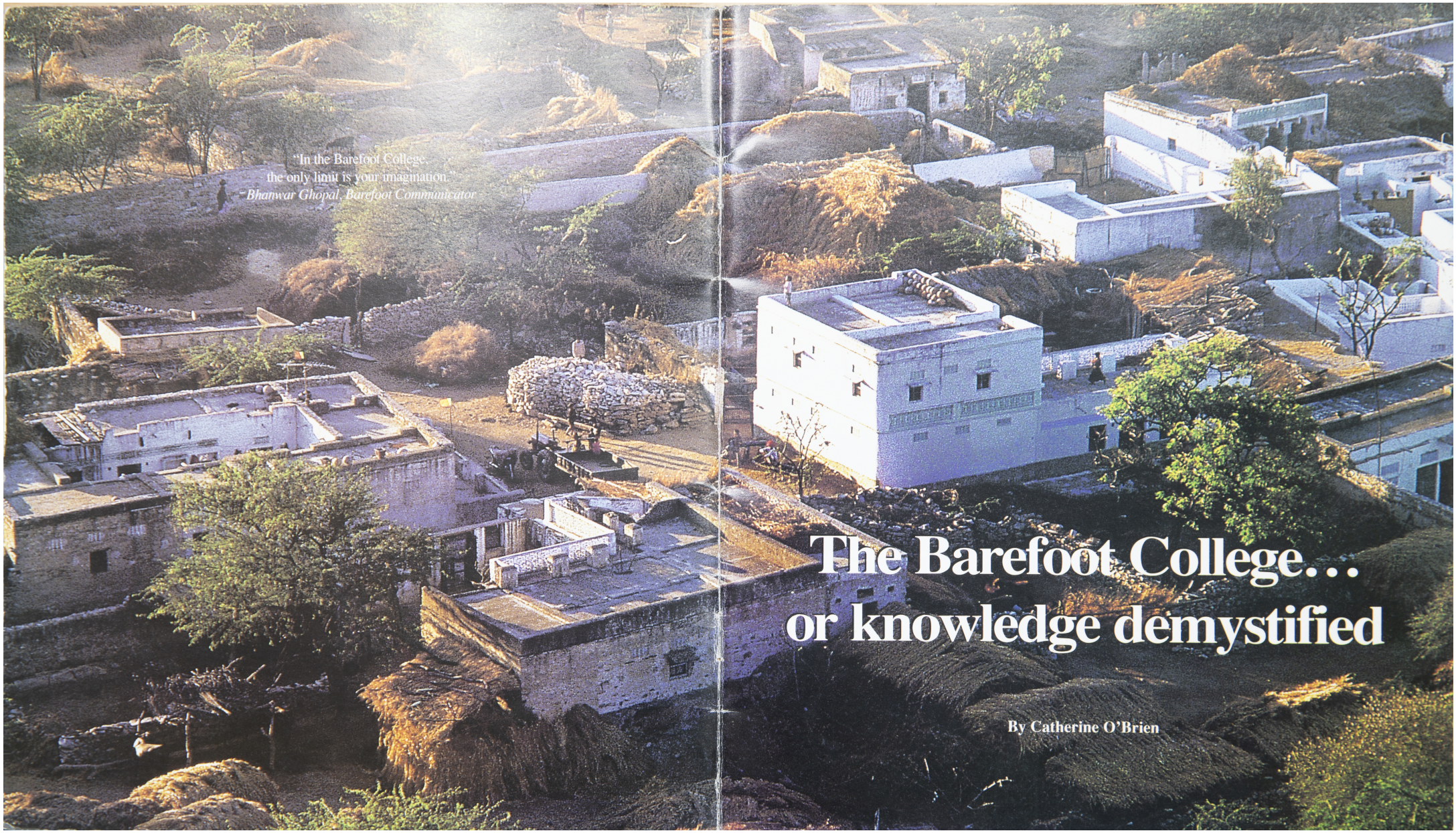
The Social Work and Research Centre (SWRC) at Tilonia, Rajasthan, India



UNESCO

unicef

1998



The Barefoot College… or knowledge demystified

By Catherine O'Brien

Education for All: Making it Work

About the project...

The World Conference on Education for All, held in Jomtien, Thailand, in 1990, recognized that a policy of «more of the same» would not be sufficient to achieve the goal of education for all. Educational systems in most countries clearly need an injection of fresh ideas, a broader vision of how the basic learning needs of all might be met, and the courage to turn this vision into practice.

It was the quest for an expanded and renovated vision of basic education which prompted UNESCO and UNICEF to launch their joint project «EDUCATION FOR ALL: MAKING IT WORK» right after Jomtien. The two Organizations decided to disseminate and promote examples of educational change – both in the realm of formal and non- formal education – through which the principles of Jomtien would come to life: programmes which provide learning opportunities for children, youth, and adults, including underserved groups and those with special needs; programmes which focus on actual learning acquisition, rather than on mere participation or certification requirements; programmes which aim to provide a solid foundation for life-long learning, which are responsive to the learning needs and conditions of the socio-cultural environment, and which build effective partnerships with local communities and parents.

UNESCO and UNICEF believe that effective and sustainable change in education arises from the inventiveness, experience and dedication of educators, parents and community leaders at the grassroots. The «EDUCATION FOR ALL: MAKING IT WORK» project shows that educational innovation and change are already underway in all developing countries and that even the poorest countries are able to take up the challenge of devising educational programmes to fit their means, needs, and aspirations.

The project strategy emphasizes educational innovation in practice rather than discourse. The INNOV database presents many little-known experiences, some of them with considerable potential. The most promising and significant ones are showcased in the present series of booklets, or through films contained in the EDUCATION FOR ALL VIDEOBANK. Others are grouped together and compared in a new series of THEMATIC PORTFOLIOS, devoted to critical issues in basic education.

All these resource materials are used in training workshops, inter-project visits and similar activities meant to support specialists and planners from developing countries in their struggle to turn education for all into reality.

The project team will be pleased to receive new information, comments and suggestions from all those interested in promoting change and innovation in basic education. We particularly appeal to UNICEF and UNESCO colleagues in the field to co-operate actively with the project.

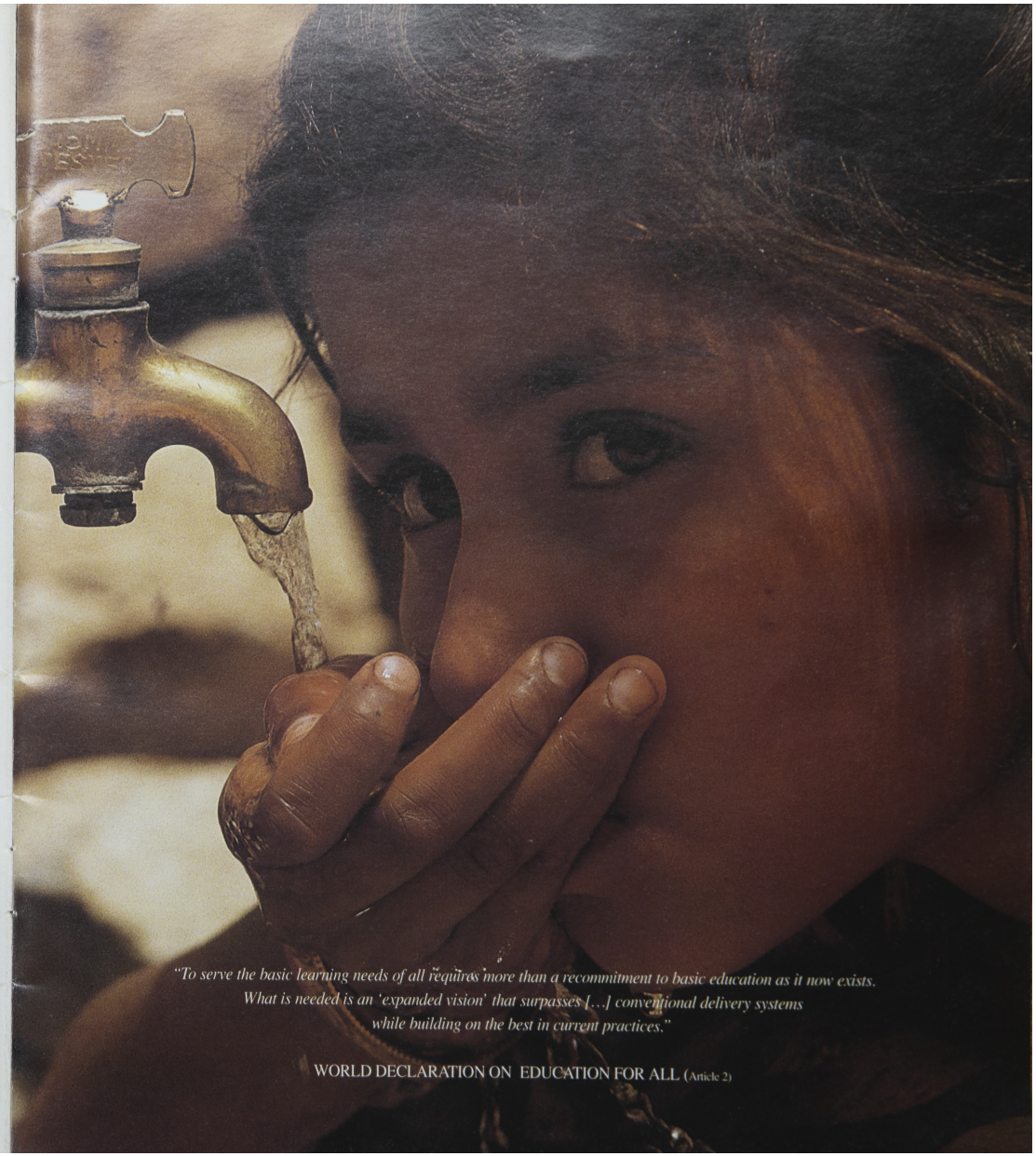
For more information about the project, please contact:

Global Action Programme on Education for All
UNESCO
7, Place de Fontenoy
75352 Paris 07 SP
FRANCE
Tel: (33-1) 45 68 10 00
Fax: (33-1) 45 68 56 29

Education Cluster
Programme Division
UNICEF
3, United Nations Plaza
New York, NY 10017
U.S.A.
Tel: (212) 326 7000
Fax: (212) 824 6481

If you wish additional copies of the «Innovations series», please contact UNESCO.

S.W.R.C. TEC
LIBRARY
CLASS No.....
BOOK No.....
Accession No.....
YEAR.....
PRICE.....
RECKINo.....
SELF No.....
LIB



"To serve the basic learning needs of all requires more than a recommitment to basic education as it now exists. What is needed is an 'expanded vision' that surpasses [...] conventional delivery systems while building on the best in current practices."

WORLD DECLARATION ON EDUCATION FOR ALL (Article 2)

Table of contents

Barefoot College, history and philosophy 8

Education 13

Ways and means 19

Barefoot campus and structure 20

Barefoot sections 22

Replicating the Barefoot College approach 28

Conclusion 32

Features 34

Puppetry 34

Oral tradition and knowledge diversity 35

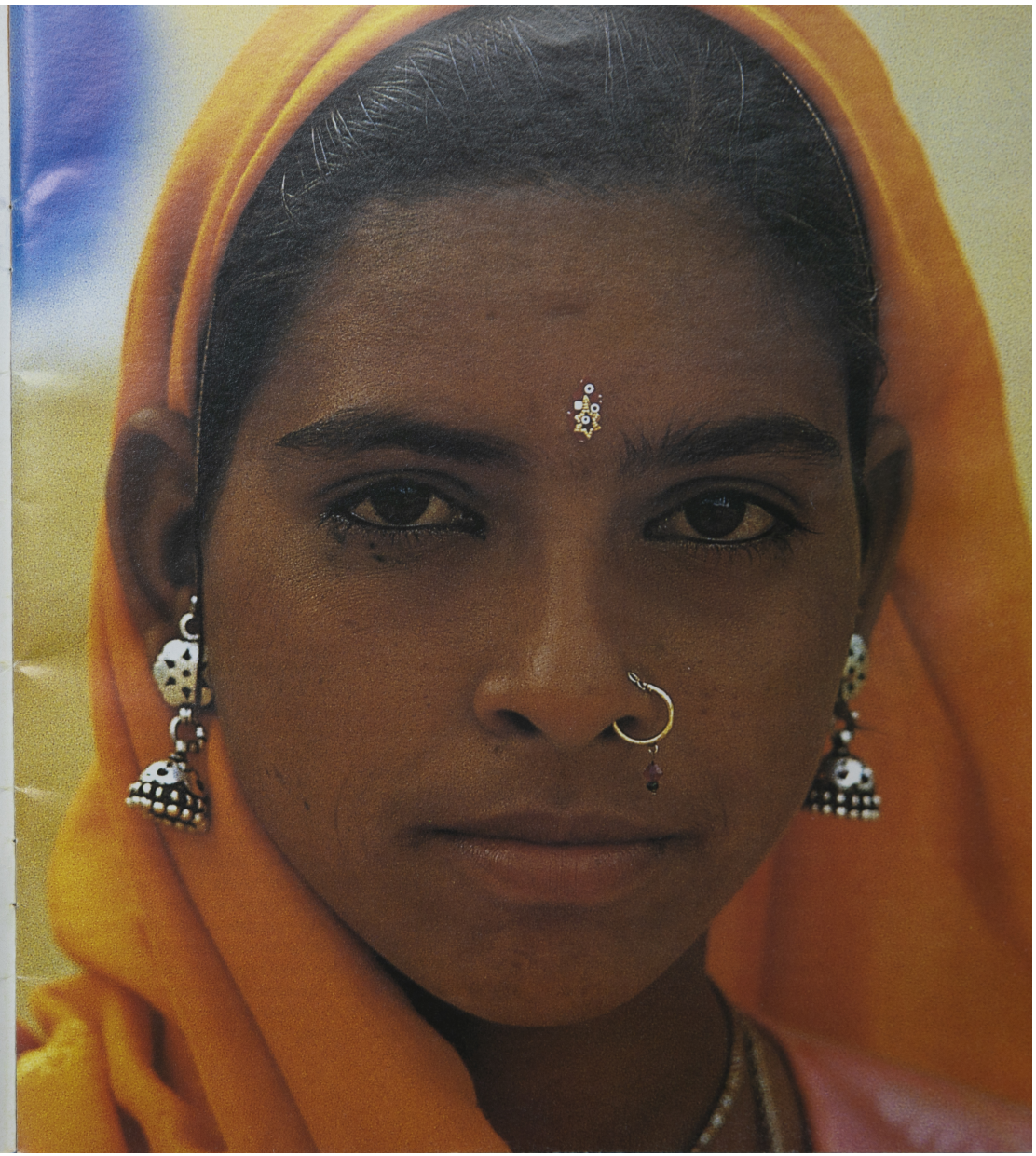
Rajasthan and Barefoot College statistics 35

Children's Parliament 36

1995 ESCAP Award 37

Bibliography 38





Barefoot College, history and philosophy



Rajasthan, 'the Land of Drought and Colour', is a semi-arid state in northwestern India. One of the country's largest and poorest states, it covers an area of 342,239 square kilometres. According to a 1991 census, its population is approximately 44 million (23 million men and 21 million women). Over 45 per cent of all males and 80 per cent of all females are illiterate. More than half of the children of school age (6-14) do not attend school and the majority of these are girls. The State of Rajasthan is divided into 58 blocks and 37,890 villages where most people survive on subsistance farming or manual labour. Tilonia is one of 110 villages in Silora Block, one of 8 development blocks in the Ajmer District.



The Social Work and Research Centre (SWRC) officially started in the village of Tilonia in 1972. Forty-five acres of government land and an abandoned tuberculosis sanatorium were leased from the government for the sum of 1 rupee per month (less than 0.05 $US) to set up the centre. Situated in the village of Tilonia, it was to serve as a campus for the surrounding villages and area. The founder, Bunker Roy, wanted to break away from the Indian social work tradition which had an urban, middle class and academic orientation. He wished to set up a voluntary organization which would attract young, urban professionals to come and work with local villagers in an integrated development process. The professionals would immerse themselves in the realities of harsh rural life and participate in a pratical approach to research. The result would be true action and lasting development in partnership with the deprived. This joint venture with specialists and local villagers was symbolized in the organization's emblem which depicts two people joining hands, one holding a book and the other a plant.

SWRC, Tilonia or the Barefoot College, as it came to be called later, began informally and small. No pre-planning was carried out. Tilonia was really just a quiet and neglected village like the others around it. It had no government programme. Work started with a two-year ground water survey of the 110 villages in Silora Block for the Rural Electrification Corporation. Gradually health and education programmes and later work in rural industries and agriculture were elaborated. Bunker Roy decided to work alone at first but was then joined by three others after some eight months. The report for the water survey was officially accepted by the State Government of Rajasthan which, until then, had maintained an attitude of curiosity. At the time the notion of voluntary work was still very new and the government had left the SWRC to develop its strategies and alternatives alone.

The project spread through the natural interaction of the staff with the local communities as the needs of the area were slowly revealed. The project's philosophy, according to S. Srinivasan of Tilonia, meant "that urban-educated professionals had to go through a deschooling process. Whatever they had learned in their university education was in direct conflict with what was happening in the field. They had to come to understand the inherent value of human beings and how to work with them." Initially, the SWRC was interested in providing technical and economic services to villages. As the project advanced, however, experience taught the staff that when they attempted to work with a village as a whole, the more powerful members of the village would manipulate the programme in their favour. Problems were not merely technical but social too. It was discovered that in the village of Tilonia alone there were fourteen different castes with very specific social traditions. The location of a well, for example, would become an issue because the 'higher' castes wanted it near them and would not drink from a well in a 'lower' caste area. Similarly, the irrigation schemes set up were benefiting affluent farmers who owned large tracts of land. The staff realized that even if they only wanted to work with the rural poor, that was not always a straightforward task. Identification of the rural poor was, in itself, problematical for 'outsiders'. As the staff remember "when the SWRC started, we were



confounded by the question - who are the rural poor? Do you identify them as people who are living in a hut and wearing tattered clothes? We observed that someone might be living in a hut and wearing tattered clothes and be the vested interest himself!"

By 1979, the SWRC staff decided to rethink their objectives and address the various dilemmas. They asked themselves "Do we work with all members of the community or just the poor? Is it better to work with the influential members of the village and change their attitudes or support the poor exclusively and run into conflicts with opinion leaders? Are we here to provide technological assistance or, in fact, create suitable conditions for development in the villages?" The SWRC staff took the decision to work with the poor. They identified marginal farmers, landless peasants, rural artisans, women, children, and scheduled castes and tribes as their target group. Scheduled castes and tribes also constitute the officially recognized weaker sections of society and form a distinct target group under the existing pattern of government planning.



Nothing prevented the SWRC project from progressing yet a slow pace of development and growth was purposely set. The community, fixed in its traditional opposition of rich and poor, kept its distances at first because it didn't know how to react to strangers. People needed to be convinced of the utility of the project. The dialogue with the poor began once the founders started tackling problems related to basic needs - provision of drinking water, establishing night schools for the children, making dispensaries free of charge for women to give birth, etc. The process could not be rushed. Early crises, however, served as catalysts for elaboration and innovation. After a first crisis in 1978-79, things came to a head when the founders came to realize that the urban-trained professionals (doctors, teachers, engineers, geologists, geophysicists) did not have the capacity to stay for long periods in rural areas. High expectations, need for quick results, parental pressure to get a "good job" seemed to have played on the minds of these people and, after a few years, they left. The movement towards sustainability obviously took a further step forward. The rural poor became more involved in Tilonia as the urban-based professionals stepped aside.

The organization, until this crisis, had differentiated between staff expertise with the titles of 'specialist', 'professional' and 'para-professional' (with specialists carrying more weight in decision-making). A self-evaluation process began which was to transform priorities and the agency. The staff started to question their basic assumptions. They retained three onto which they agreed to build. These were: 1) that there is poverty in rural areas; 2) that it won't go away on its own, and 3) that something must be done about it.

This self-evaluation process and ongoing experience have meant that concepts of development, education, experts, professionalism and research have been redefined. The result is an organization which has become a creative leader in education and development in the region. Radical steps, however, were needed to achieve this re-organization: levelling out the salary scale and treating all staff equally (other urban-educated staff resigned at this point); decentralizing programmes with even more power for surrounding villages through the establishment of field centres and collaborating as equal partners with the rural poor. Today, approximately 80 per cent of the staff are from rural Rajasthan. The identification of the rural poor is no longer an issue. Bunker Roy firmly believes that now "at Tilonia, education and development are for the rural poor and managed by the rural poor".

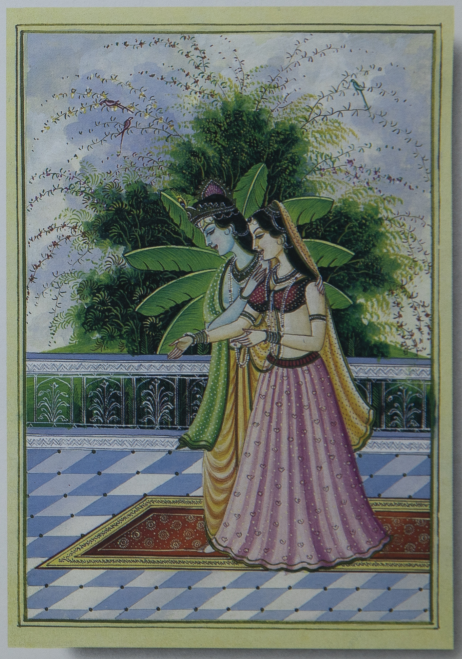
Tilonia decided on the so-called "Barefoot Approach" in the early 1980's. The term originally comes from the Chinese health workers who were villagers trained to assist their own rural communities in the 1960's. Tilonia or the Barefoot College, as it was therefore called, has five non-negotiable values which are the foundation of all its programmes from education to social work. These are living values that create a unique culture and working environment. Many staff believe that all efforts to incorporate the Barefoot College process in other contexts must include these values. Otherwise, they argue, the new venture may appear similar on paper but fall short of the essential characteristics that nurture a sustainable development process.

Equality

The Barefoot College believes that every person in society is important and must be respected. Women and men are equals. In addition, education, caste and class do not make any one person more valuable than another. Anyone, regardless of caste, class or gender is eligible for any staff position. All the staff eat together in a common mess and wash the dishes they use. This was a new experience for many of the staff who come from villages where caste hierarchies are still very evident and it is quite revolutionary for some.

Collective decision-making

In keeping with the concept of equality, the Barefoot College provides equal opportunities for all involved in decision-making as well as planning and implementation. A minimum degree of structure required to operate the College has been maintained. Attempts to remove both formal and informal hierarchies and encourage all the staff to participate equally in decision-making processes have been made. Village Education Committees (VEC) participate in the selection of night school teachers and supervise an education fund. All Barefoot College programmes are designed to develop collective decision-making skills since these are essential for problem solving.



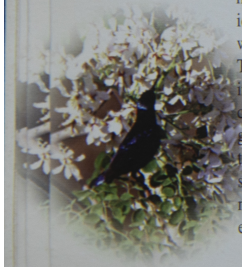


Self-reliance

Self-reliance and self-esteem are given high priority in the Barefoot College. These are seen as fundamental factors in a sustainable development process. When people develop self-confidence and join together to solve their problems, they learn that they can depend on themselves. People who have very few resources can combine them and work together to develop their community.

Decentralization

The Barefoot College is committed to grassroots level planning and implementation in a development process which takes into account the recognized needs of the community. Rural communities can identify their needs and solve their own problems when they have access to information and education. The Barefoot College works to support the flow of information and education facilities between rural communities, field centres, the main campus and government. The Barefoot College favours the creation of village committees and the development of skills required for rural communities to assess their needs and work collectively to meet them. Data, for example, are gathered to design and evaluate programmes through a participatory research process. Night school teachers, midwives and day care workers are trained in recording information on health and education topics.



Austerity

The Barefoot College stresses the need for austerity in thought and action. The staff lead a simple life working for the collective aspirations of rural communities rather than striving for individual material goals. They are a very committed group of people who enjoy the high quality of life that comes through a fulfilling job, a close knit community feeling and a stimulating, creative environment.



According to the 1991 census, the population of scheduled castes was 139 million (15 per cent of the total population) and that of the scheduled tribes 68 million (7 per cent). Over the past years, the affirmative policies of the government have resulted in a considerable increase in the enrolment of these groups in primary education and Tilonia has also adopted this approach. Bunker Roy feels that the success of Tilonia has, indeed, been to support the most deprived. He says, therefore, that "the reaction of those with vested interests in the villages has been one of caution. They speak disparagingly of the Barefoot College as an agency which only supports scheduled castes (harijans), but the Barefoot College takes this as a compliment."

Education

Tilonia's education programmes are seen as means for creating self-esteem and appropriate skills. They contribute to the learner's community and arouse awareness about the environment and the forces that dominate development. Literacy and numeracy are part of this process but are not the central goals. 'Expertise' at the Barefoot College comes through hands on experience in training programmes and through the informal learning of rural life. The aim is to nurture learning for those who have been let down by the formal system or who have no chance of joining it. The formal education system, Tilonia believes, is solely oriented to meet the needs of the middle-class as school hours (daytime, vacation schedules) do not suit rural children and the curriculum has an urban bias which can only prepare students for government and professional employment (sectors that have gross unemployment). The language of instruction, in formal schooling, also, generally forces children to learn in a tongue other than their own and schools are often not located within reasonable walking distance for young children. This situation conspires to undermine the learning experience of rural children and disassociate them from the traditional learning patterns of their environment. As Professor C. J. Daswani of the National Council of Educational Research and Training (NCERT), remarks, this leads to children excluded from the formal system as 'drop-outs', 'pull-outs', or 'stay-outs'.

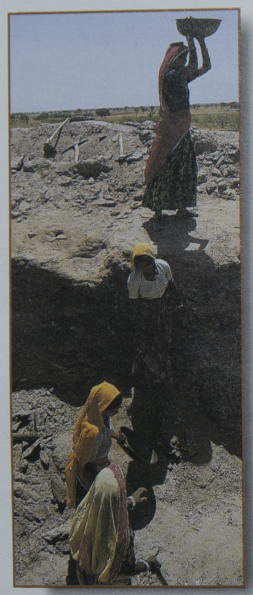


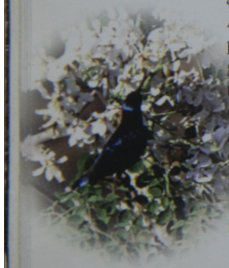
Obstacles and innovations

The obstacles to education, let alone learning opportunities for girls or Education for All, are enormous in Rajasthan. The Barefoot College recognizes this reality and its training programme tries to deal with it effectively. The main educational philosophy of learning from doing and mutual interaction is, therefore, not through formal classroom teaching but through practical experience. The importance of education lies not in paper qualifications or exams but in achieving skills that guarantee the sustainable development of rural communities. The crucial questions are: can people work with their hands? Will their

education prevent environmental degradation and make communities sustainable? Will villagers come to finally depend on each other and use existing village skills for their own development? The Barefoot College's role is to facilitate villagers' empowerment, and, in the process, allow for self respect and dignity.

The education section has been a source of continuous innovation throughout Tilonia's twenty-four year history. Three experimental schools were founded in 1975 to test new methodologies of non-formal education such as the use of folklore, songs, puppetry and theatre in classes, training and learning groups. The conventional teacher-student relationship which sees the teacher as an expert imparting knowledge to students evolved to incorporate a different philosophy in which everyone teaches and learns. A curriculum grew accordingly with relevant subjects for rural children. This meant modifying existing non-formal pedagogical methods and solidifying the concept of Barefoot educators. Schools were rescheduled to meet the times of rural children and teachers were drawn from the surrounding communities and trained in the SWRC concepts.





As teachers became more involved in the actual planning and implementation stages of the programmes, a requestioning of the role of education in the development process occurred, particularly the role of the night school in relation to the SWRC. It appeared that the night schools could serve as a structure around which development could take shape. As writes Aruna Roy in Tilonia's Night Schools - An Alternative Approach: "when development began to be discussed, the importance of the night school as a nucleus of awareness building began to emerge".

Tilonia, therefore, separated its education programmes from conventional literacy and numeracy as the perception of the roles of the teacher, the night school and community changed and grew. The importance seemed to be on the community's needs and desires not the teaching role of one person or an imposed philosophy from outside. Solutions lay in the resources from the community. As says Ratan Devi, Development Co-ordinator at the Barefoot College "people have great resilience. We need to tap the human resource potential in rural communities. Personal examples of the rural development process go a long way to sustaining rural communities but people need to be organized and mobilized as pressure groups and aspire for their own rights. We should not talk about improving things without actually meeting basic needs. This is not sustainable."

The community's opinion

A vital step in the validation of learning at Tilonia was the assessment of the community's needs and understanding of education. Night school teachers, day care teachers, midwives and village education committees associated with the Barefoot College were asked to define what rural communities needed to sustain themselves. Most people put information and/or an educational process first on their list. They felt that communities could be self-reliant if they had access to information, particularly regarding government programmes and legal literacy. In addition, they believed that by pooling their resources and learning to resolve problems collectively they could form sustainable communities and pressure groups to influence policies. The community showed that it wanted learning opportunities that developed literacy and numeracy skills, not just as a means to self-reliance, but as a way of avoiding exploitation by the literate. The need for girls' education, to achieve greater equality, was recognized. A learning process that enabled students to serve their community rather than seek individual prosperity was deemed vital. The differentiation between knowledge and information was quite clear. Knowledge was seen as coming from non-formal learning in the way that it has continued for centuries in India. Skills and knowledge are passed on from generation to generation through apprenticeships and oral traditions. Information, however, was viewed as something that comes from official sources like the government, media and the formal education system. People insisted that rural communities have the knowledge to sustain themselves and that innovations in agriculture and appropriate technology represent the kind of information that can facilitate this process.



Many members of the community also saw education in terms of schooling, as a vehicle for social mobility or as an opportunity to get a job. The formal education system, however, was not satisfying these demands. The instinctive reaction was to reject school. A relevant education that prevented children from being alienated from their surroundings seemed the only way to interest the community once more. For this training skills, which had immediate day to day use, had to be imparted and facilitated by local educators trained in the education and development philosophy of the Barefoot College. Local staff, such as the Balsevikas or women who run the day care programmes and the night school teachers do, indeed, come from the villages where they work. The training sessions bring together local midwives, day care workers and night school teachers. They are used to share education and health information for all three sectors and ensure a coherence of philosophy between sections. Challenges and obstacles encountered by the workers are discussed and possible solutions explored. The central issue remains the involvement of the community. The 40 day care centres for 0-5 year-old children monitored by the Barefoot College serve to keep contact with parents and the community. Once a mother brings in a child to the day care centre, staff attempt to build on her interest in the child's health and education, tackling issues of nutrition, health care and women's rights. Four day schools are also run through the Barefoot College. The emphasis, however, is on the 150 night schools which have now been established in 89 villages for children who work during the day.

Methodology

Initially the government was asked if the night schools could use their infrastructure since formal school buildings were not used at night. Where this was not possible the village inhabitants allowed the use of community centres in the village. Whenever even that facility was not available the night schools were located in teachers' houses. The night schools are supervised by Tilonia's education staff and have a curriculum specifically adapted to rural surroundings with innovative approaches regarding student-

teacher relations, teaching methodology, use of local people as resources and emphasis on girl education. There is a strong environmental orientation in the curriculum. Students, for example, are taught the



value of wasteland development and the destructive effect of cutting down trees for fuel and fodder. The classroom methodology is essentially based on individual contact with children. This means focussing attention on the child's immediate surroundings and familiarising him or her with them. Emphasis is, therefore, given to imparting an educational process that refers to agriculture, animal husbandry and the daily activities that go on in a village. The children are motivated to feel a sense of belonging towards the school and keep close ties with the teachers to sustain their interest in attending. The curriculum consists of Language (Hindi), Arithmetic, Social Studies, Science, Geography and Environment. Classes 1 and 2 initiate the children to language and the idea of reading and writing Hindi through finger movements. Simple additions, subtractions and multiplications are also introduced at this stage. Work concentrates on mentally preparing the children to find out the functions of language and mathematics. Alphabets are taught from the very beginning. By class 3, children learn to link letters to words and words to sentences. They are encouraged to formulate their own sentences. The teaching is divided into three quarters of four months each. By the end of the first quarter they are able to recognize words with sentences. Knowledge of social and rural behaviour is introduced at this level with information on households, self-government and casteism. Classes 4 and 5 emphasize a detailed geographic knowledge of the district and village as well as the socio-political structure of the country. This includes information on local fairs, festivals and traditional stories. Children are encouraged to learn about social and political thinkers and famous personalities who have contributed to the structure of the nation. By this stage, teaching sessions concentrate on the power of sentences and word construction. Ways of pronouncing and story-telling are introduced alongside songs and games. Agriculture and Animal Husbandry play an integral part in the curriculum for classes 4 and 5. Children are taught about rabia, kharif and pulse crops, fertilisers and the cultivation of cereals and pulses. Vocational training is another part of the curriculum for classes 4 and 5. Carpentry, Sewing, Cement Block Making, Motor Winding are just some of the subjects tackled.

In the night schools, the youngsters are alert despite the fact that they have worked all day with their family looking after the animals or cultivating. Their work is an essential contribution to the lives of subsistence farmers and much of the success of the night schools is to have convinced working families of the importance of education. The fact that students may integrate the formal system if they want is an added incentive. Girl education is given special emphasis as over 60 per cent of the night school students are girls. The Village Education Committees and the night school teachers talk with parents who are not sending their children to school and do their best to persuade them. The equality of girls and women in society is continually stressed. These values are certainly being communicated since the children themselves have elected a girl Prime Minister for their Children's Parliament. This Parliament is an exciting innovation of the Barefoot College night schools. Children participate in elections which parallel the political structure of the Indian government. They elect a prime minister,

ministers and a legislative assembly. The Parliament teaches them about the political process and the value of recognizing good candidates on their own merit, regardless of caste, class or gender. For the children in the parliament, it is an important learning process to impress upon them the values of responsibility. It demonstrates that with power comes responsibility and both can be enriching. The process also enables the children to become more actively involved in the running of their schools. All of the education programmes cut across class differences and promote values of equality, community development and environmental protection. The Barefoot College night schools are an example where the lines between formal and non-formal education blur. Non-formal curricula and teaching methodology are applied in the night schools but they also represent the only 'formal' educational opportunity for many rural children. To date, over 15,000 children have passed through the Barefoot College.

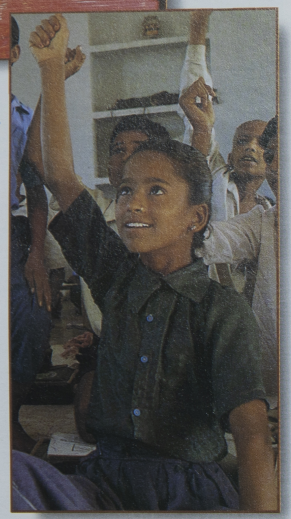


Selection and training

The Barefoot College initially conducted a survey to determine what resources available in Silora Block could enhance the education process. Resource people have since been identified as well as locations. Night school teachers are local residents who have generally completed their 8th grade. Many have been teaching in the night schools for more than ten years. Recruitment normally starts with discussions between community members and field centre workers on the identification of youths capable of becoming night school teachers. The community suggests names of young people from the villages who are, in principle, from the poorer sections of society and who they feel can work with rural children. A meeting with the Village Education Committee (VEC) and the community is then organized and debates over selections take place. Training the teachers takes two years. The monthly two-day meetings of the night school teachers at the field centres are used as a forum for tackling classroom situations and curriculum building. Every summer vacation, night school teachers undergo a 15 day training programme to strengthen skills in teaching the various subjects in the classroom. Teachers are constantly motivated to have a positive attitude in all their dealings with children. The subject training and design are conducted in an informal atmosphere. The most important point during the training is to instill a spirit of voluntarism in the teachers. The idea is to widen their vision and equip them with appropriate skills to deal effectively with rural children and colleagues. It could be said that the training programme for the Barefoot educators is, in many ways, a continuous process of skills development and learning from one other. As says Dais, a night school teacher at Kadampura Field Centre "we are all students and teachers in the Barefoot College".

Village Education Committees are an important component of the night school programme. They draw men and women together to support the education process. They select the site for the school, monitor the programme, participate in the selection of teaching staff and canvas village households to encourage parents to send children to school. Two members of each VEC hold a joint bank account



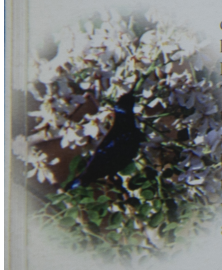


schools are financed by the German organization Agro-Action and the Save the Children Fund and the concept has been replicated in 8 other states. The expansion of these ideas has been financed by the Government of India. There are also sub-centres in 13 Indian states which reflect much of the educational orientation of the Barefoot College. Each sub-centre, however, adapts the education programme to its particular geographical and cultural context.

The government recognizes the value of the education given at Tilonia and, through their Shiksha Karmi and Lok Jumbish programmes, they have remodelled many of Tilonia's innovative aspects in the field of community participation, local teachers, relevant curriculum and classroom co-ordination. Many people from the government projects have worked with Tilonia to administer their programmes and a former Development Co-ordinator of the Barefoot College, has been appointed to the position of Project Officer for the Lok Jumbish programme in Silora Block.



with the field centre coordinator in their area. During monthly meetings, night school teachers present monetary demands to the committee. The VEC members are also responsible for dispensing teachers' salaries. In addition, the teachers and Village Education Committees who represent local communities are involved in the curriculum development and are asked to identify the learning needs of rural children. The Education Section has a Section-in-Charge to administer the programme and collaborate with other sections of the Barefoot College. There are staff who also work directly with the Section-in-Charge, some of whom have been night school teachers themselves. The Education Section is presently being moved from Tilonia to one of the field centres in order to decentralize the education programme more fully into the villages. The quality of the programme is assessed by the education team and also by the organizations that finance it. Some of Tilonia's staff have worked with the Institute of Development Studies in Jaipur and are skilled in research and evaluation. The night



Ways and means

Tilonia's grassroots experience in building strong rural communities offers many opportunities to learn about the concrete application of principles of sustainability. The project has four main targets within the sphere of satisfying the minimum needs required by rural communities: i) to raise the standard of living; ii) to improve the quality of life; iii) to upgrade their skills through training; and iv) to guide the community to take the responsibility of providing some of these basic services. Tilonia has activities in the following fields:

1. Production of solar units for night schools and for the electrification of remote villages and the training of local youth in production, maintenance and repair of these units;

2. Provision of safe drinking water through quality testing and the installation of hand pumps in suitable localities, with repair and maintenance of the hand pumps by Barefoot mechanics;

3. Generation of employment through the training and upgrading of handicraft skills and by the provision of new markets for rural women and artisans;

4. Education for children through the running of night schools and pre-primary schools in villages;

5. A women's group that generates awareness of issues concerning rights and empowers women through meetings and melas (fairs);

6. Animal husbandry through the rearing and stall feeding of goats for milk and meat as well as raising superior quality bucks for breeding;

7. Wasteland development and regeneration by planting feed and fodder tree species in designated areas;

8. Traditional communication media including street theatre and puppet plays, produced for local villages on topics of social and environmental concern;

9. The provision of basic health services through village health workers trained in the prescription of homeopathic medicines;

10. Demystifying technology and knowledge which have generally not been accessible to rural people.

The Barefoot College also has eight Field Centres which function as resource and training centres. It has affiliated organizations in thirteen states across India whose actions are coordinated by SAMPDA, an umbrella organization in Delhi.

Barefoot campus and structure



Tilonia is a member of a number of information networks on the environment and sustainable development. It is also the member organization for India for the United Nations Eco-Volunteer programme which identifies and supports those working locally in the field of sustainability. Tilonia's structure is defined by its Director, Bunker Roy, as "loose" and he considers this one of its strengths. While there are definite lines of authority such as the Director and section leaders, there is a conscious attempt to avoid hierarchies in decision making and salaries. There are monthly meetings which bring together the section leaders, field centre co-ordinators and the Director. Informal meetings also occur spontaneously. There is an Accounts Department that oversees the finances and the responsibility for funding requests and reports is shared by the senior staff. Numerous mechanisms link SWRC villages to each other. Some of the field centres have telephones as does Tilonia but most interaction happens through meetings which are held in Tilonia, at field centres and in villages. Many of the staff at Tilonia come from the surrounding villages and return to them each day, ensuring constant communication.



The original 45 acres and sanatorium buildings constitute the 'old' campus of the Barefoot College but land was purchased about a kilometre away and a 'new' campus was built in 1989. It was designed by one of the staff, who had no formal education, working in conjunction with an architect. Plans for the campus were drawn and re-drawn on the ground as the design changed more than ten times. Bhanwar, the staff member who helped design the campus, and who also managed the sixty masons who constructed it, recalls that as the design was still not set after many revisions, "we just decided to start building". Bhanwar's achievement with the new campus has inspired many local people and staff. They see him as an example of how successful the Barefoot College can be, proving illiteracy does not have to stand in the way of learning and development. The campus reflects the Barefoot College ideal of environmental regeneration and protection. Local materials are used and the entire campus is powered by solar energy, including its computers. A bio-gas plant provides the power for sterilizing medical equipment. Metal windows and doors have been constructed in the fabrication workshop to reduce the use of wood and glass. Rainwater is gathered on the rooftops and collected in an underground tank of 400,000 litres for irrigation. Trees have been planted throughout the campus. A worm pit serves the dual purpose of composting organic waste and demonstrating vermiculture.

The new and old campuses house the main centres for each of the programmes of the Barefoot College. There are administration buildings, guest quarters and a stage. Many training programmes take place at these sites. Other voluntary agencies use the facilities and there are frequent tours for students, government and foreigners. The College's eight field centres form a vital link between the main campus and the villages. Training programmes are also carried out at the field centres and some sections, such as the education section, have moved from the new campus to a field centre. This is part of a move towards greater decentralization into the villages.



THE BAREFOOT COLLEGE SECTIONS

EDUCATION
Night Schools for Children
Day Schools
Pre-schools
Children's Parliament
Training Barefoot Teachers
Shiksha Karmi and Lok Jumbish
Training and Supervision
Toy Workshop

SOLAR ENERGY UNIT
Solar Electronics Workshop
Solar Lanterns

WATER
Geological Surveys
Piped Water Supply
Hand Pump Installation
Training Hand Pump Mechanics
Rainwater Harvesting Structures

HEALTH
Training Barefoot Doctors and Health Care Workers
Pre- and Post-Natal Care
Nutrition
Health Education
Family Welfare Programme
Water Testing
Eye Camps
Curative and Preventive Services
Outpatient Dispensary
Rural Latrines

SOCIAL FORESTRY, AGRICULTURE, ANIMAL HUSBANDRY
Wasteland Development
Organic Farming
Demonstration Plots
Goat Breeding
Dairy Unit

WOMEN
Women's Groups
Legal Literacy
Women's Melas (Fairs)
Women Hand Pump Mechanics

COMMUNICATION
Audiovisual
Puppetry
Street Theatre
Screen Printing

RURAL INDUSTRIES
Weaving
Blockprinting
Tailoring
Handicrafts
Marketing

LIBRARY
New Campus Library
Old Campus Library
Field Centre Libraries
Mobile Library

FABRICATION
Solar Supports
Doors and Windows
Geodesic Domes

The Barefoot sections

Each section has its own specific programmes and activities. These are designed to interact with each other. For example, as many of the night schools are lit with solar lamps, knowledge of solar power is introduced into the children's curriculum. When the direction of solar panels has to be changed, this is used as an opportunity to discuss geography and science with pupils. The dairy section provides milk for the day care children and the social forestry programme is connected to the education section as nurseries are planted and maintained by children. The communication section carries messages for all of the Barefoot College through puppetry, street theatre, audiovisuals and posters.

Water

The Barefoot College's early emphasis on drilling wells and irrigation schemes changed dramatically when it was decided to focus on the rural poor. Luxman Singh who coordinates the Ground Water section says that they had to learn about the politics of water (i.e. the role of opinion leaders in the villages, the distribution of limited water resources and the financial resources that are siphoned off through bureaucratic structures). The water section now concentrates on the installation and maintenance of hand pumps, piped water systems, ground water surveys, and rainwater harvesting.

Pumps were only installed where they would meet the needs of the poor with particular attention given to the needs of women. A training programme for village youth as hand pump mechanics which replaced the earlier 3-Tier system of the Rajasthan government was established. In 1979 the government had an elaborate 3-Tier system in place in Rajasthan for maintaining hand pumps. There was the hand pump caretaker at Tier 1. He or she was selected by the government and worked free of charge. At the block level, Tier 2, an inspector/mechanic was responsible for ensuring the maintenance of hand pumps in 100 villages. For Tier 3, district level, a Mobile Maintenance Team (one for every 500 hand pumps), included engineers who were responsible for all major repairs. The consequence of this system was



that the people who were responsible for the hand pumps did not live in the villages and were not necessarily accountable to the people. Significant financial resources were required to sustain the 3-Tier system, (particularly the salaries of engineers), in addition to the fact that it required motorized vehicles. The 1-Tier system developed at the Barefoot College provides a cost-effective alternative to the previous system. It places the responsibility for hand pump maintenance in the hands of each village and promotes self-reliance. Hand pump mechanics are now trained through the Barefoot College itself. It also trains the members of the ground water team and the people who work on the community pipe water systems. Community development lies at the basis of all action to facilitate participation. The piped system team, therefore, works at the rate that is determined by the communities they work with.

The idea for the Barefoot hand pump mechanics grew out of a discussion in a village shop. Some of the Barefoot College staff were drinking tea with the owner of a cycle repair shop. One of the government mobile maintenance teams zoomed past and the owner from the cycle shop commented: "All for a washer in a hand pump - Isn't it too silly for words?" The discussion continued around the capabilities of local youth to repair tractors, pumps, agricultural machinery and bicycles. Why not hand pumps as well? Tilonia set out to determine if local youth could in fact be trained to repair the 300 hand pumps they had installed. Once the technology was demystified they realized that 90 per cent of repairs could be accomplished with a little training.

The Barefoot College worked with the government employment programme, TRYSEM (Training of Rural Youth for Self-Employment) to establish their 1-Tier System which now involves:

- the identification of rural youth from economically poor backgrounds with mechanical aptitudes, whose skills can be upgraded through training
- the mobilization of government resources to pay stipends to Hand Pump Mechanics (HPMs) while they are being trained for three months
- the placement of trained HPMs in villages where they are accountable to the community
- the provision of credit banks for the purchase of tools so that the HPMs can eventually be self-supporting

Village-based hand pump mechanics on bicycles have now replaced the government mobile unit in many villages. Each mechanic is responsible for thirty hand pumps within five kilometres of his or her village. The Barefoot College is also working with communities to install piped water systems. The government of Rajasthan will consider a village eligible for a piped water system if there are at least 5,000 people. The SWRC will relax this condition if they feel the need is significant. They set certain conditions however. There must be community participation in the project and there must be one good source of drinking water that the poor have access to. Their approach to community participation in the entire process of water management results in lower costs than the government schemes as well as increased self-reliance.

Community health

In the words of Bunker Roy, "to mobilize resources from within the community, no service should be given free of charge. There should be no



charity in the name of development." This realization came from the endless discussions Barefoot College members had with communities who insis-

ted they did not want to be treated as beggars. This self-respect and dignity is, all too often, not visible to urban-based development agents. Rural community health has been a major preoccupation of the



Barefoot College since 1973 with particular emphasis on the health needs of women and children. They have trained Barefoot doctors and health care workers as well as upgraded the skills of local midwives. Night school teachers, day care workers and field centre staff are also given basic health training. Preventive medicine is given high priority through pre- and post-natal care, education programmes, family planning camps and immunization projects. In addition, eye camps, treatment of tuberculosis patients and general health care are carried out through the out-patient clinic on the main campus and the field centres. The infant mortality rate in 1991-92 was 114 per thousand. In 1995-96 it was 69 per thousand. Bio-chemical medicine and homeopathy are encouraged over allopathic medicine since these are seen to have fewer side effects and are less dependent on the pharmaceutical industry. The health section has also been documenting traditional household remedies, noting down oral health traditions from villager elders. Much of the community health programme concentrates on clean water as it has a direct bearing on health and the section regularly carries out water tests, covers education about water and provides latrines.

Technology dissemination

The Barefoot College's strength has always been in the field of Technology Transfer and dissemination. Solar electricity, for example, is presented to children in the night schools and local people maintain the panels themselves. The same holds for local hand pumps. When villagers see one of their own being trained as a Barefoot teacher the entire process of education and learning is demystified. Tilonia has managed to identify and transfer technology in the following areas:

- use of photovoltaics for lighting
- hand pumps for drinking water installation, repair and maintenance
- communication technology through the revitalization of traditional media
- technology of Geodesic domes throughout India (small huts for living made from thatching and other sustainable materials)
- use of mobile water testing kits
- methods for rainwater harvesting
- development of wasteland for fuel and fodder while encouraging stall feeding of goats.

Solar Energy

Bhagwat Nandon, head of the solar section, is a Barefoot solar engineer who typifies the SWRC's approach to technology. He was a priest in his nearby village of Harmara. He grew up in a large family without electricity in the home. He began working in Tilonia in 1975 as a teacher. When Tilonia had its first solar panels installed by Danfoss, a Danish development agency, Bhagwat Nandon was given the responsibility of cleaning the panels, dusting the parts and checking the battery. He says he understood nothing about electricity but was curious to learn. One of the Danfoss team began explaining the



reasons for coloured wires and the concepts of AC/DC currents. Through an informal education process he developed his understanding of solar power and now heads the section that has solar electrified the entire campus, thirty nights schools, and 522 houses in twenty-two villages in Ladakh. He has contributed to the creation of a solar workshop in Ladakh where local youth are being trained as Barefoot solar engineers. The SWRC-Leh solar team in Ladakh is now self-reliant and has the capacity to solar electrify villages on its own.

The Barefoot College has combined its approach to community participation with skills training and technology demystification in the solar energy programme. In Ladakh, rural youth are selected by their community to be trained in the installation, fabrication, maintenance and repair of solar photo voltaic units. The youths, usually with low formal educational qualifications, are trained for an initial set period and then become responsible for the maintenance of the units in their village as well as for the collection of monthly contributions by participating families. This money is kept in a central bank account and is used to provide a monthly honorarium to the youth as well as maintain the central workshop. Many villages in Ladakh are so remote that they would not have received conventional electricity for another twenty years. Most people depend on kerosene lamps even though kerosene is costly and difficult to obtain in winter months. Solar energy has proven to be a viable alternative and has received the support of the state government of Jammu and Kashmir.

Barefoot construction engineers in the fabrication section have also constructed geodesic domes in Rajasthan and other Indian states. The domes are an alternative to using wood for the construction of homes and meeting centres. Many of Tilonia's Field Centres are graced by geodesic domes which have thatched hay roofs. In addition, the fabrication section makes stands and battery boxes for the solar section. There is a continual demand for this section to produce doors and windows as the Barefoot College is purposely reducing the use of wood and glass in their buildings.

Women

Women have played a leading role in the development of the Barefoot College. They have contributed to the elaboration of policies which recognize their development needs, rights and injustices against them. Women, for example, have directly influenced the ground water section to listen to their needs regarding the placement of hand pumps and in training women hand pump mechanics. Employment generation programmes have been designed to sup-



plement the income of women, with particular attention to those who are severely marginalized by poverty, caste or physical disability. The education section emphasizes the importance of girl education, trains women teachers and runs day care centres. Wasteland development has been taken up by women who are closely affected by the shortage of



fuel and fodder. The women's section takes great pride in the fact that it operates without any external funding. Women's groups interact with other programmes and influence policies for all sections. These groups evolved through contact with Tilonia's staff and other women's groups. Mahila Melas (women's fairs), for example, are co-ordinated by Tilonia to bring women together, celebrate their accomplishments and encourage them to form new groups. There are presently 40 women's groups working to ensure minimum wages for women, health education, legal literacy, building self-esteem and organizing pressure groups.

Women's groups have played a significant role in breaking the isolation of women who were living under the purdah system. As Ram Karan of the Women's Section says "rural women have always been insecure in a male dominated society. They have been isolated even among other women. Our women's groups have helped them to shift from isolation (purdah) to group support." Women who practice this tradition are strictly limited in their social interactions, particularly with men. In many instances this meant that women who had been cloistered in their home or restricted in their social interactions passed through a significant personal transformation. These same women are now leaders in their community and/or staff at the Barefoot College and feel confident about expressing their views in groups of women and men.

Rural industries

Promoting rural handicrafts has been one of the on-going objectives of the Barefoot College which co-operates with weavers, leather artisans, women working on handicrafts, tailoring and block printing. Employment creation and traditional skills have been combined in the Rural Industries section where the organization assists people in upgrading and developing skills. The products created are marketed by Tilonia in national exhibitions and international markets. The programme, unfortunately, faces the tension of many development organizations which have handicraft projects. Their aim is to facilitate the development process but at the same time artisans are confronted by the realities of marketing products. This requires a more "business-oriented" approach of quality control, meeting orders on time and creating marketable designs. Patience and perseverance are needed to convince craftsmen to think of this and use new techniques. Traditional crafts such as block printing are being supported through a special training programme of the Barefoot College. Last year over 500 women began to learn the skill of block printing. This was in addition to the 500 artisans who already work part-time with the Barefoot College. Environmental awareness regarding materials and process has been incorporated into the rural industries section. Waste material, for example, from the tailoring section is used in appliqué work and the

creation of colourful mobiles. Vegetable dyes are used for dying cloth and block printing.

The Social Forestry programme supports the development of wasteland with trees that provide fuel, fodder, and shade. Fruit-bearing trees are planted to encourage villagers to include fruit in a diet that tends to be deficient in fresh fruit and vegetables. Once again, village committees are used to co-ordinate wasteland development programmes for their village. The animal husbandry section assists goat and sheep farmers of Silora Block in the improved management of animals. Their strategies include; i) the provision of goat buck servicing for breed improvement, promotion of stall feeding to reduce environmental destruction caused by grazing, improving milk production, ii) fodder resource development on wastelands; and iii) information dissemination and education through puppet shows, training camps, preparation and screening of audiovisuals and exposure tours. The Dairy Unit, based on the old campus, looks after cows, goats and one buffalo. It sells milk to staff and gives it to the Day Care centres in Tilonia village. The manure from the dairy unit is used in the campus bio-gas plant. The bi-product from the bio-gas plant is a slurry that can be used as fertilizer in the organic agriculture programme which is also based on the old campus. The agriculture section uses a plot of land on the old campus to demonstrate organic farming. Crops such as wheat, barley, alfalfa grass, vegetables and chick peas are sown. In addition, new seed varieties are tested. Two field centres also have land for demonstrating agricultural techniques.

At the communication section, emphasis is given to the oral traditions of Rajasthan. Traditional media such as puppetry, street theatre, audiovisuals and screen printing are used to carry messages on social values, the environment, health, women's rights and education. Puppetry and street theatre engage communities in discussions about social inequalities, child marriage, money lenders, afforestation, minimum wages and traditional beliefs. The communication team has even gone to work sites where women labourers are not receiving minimum wages to encourage them to demand their rights. Staff from other sub-centres and voluntary agencies can come to Tilonia for training in these communication skills. The staff readily point to themselves as examples of how values are changed through the Barefoot College. One of the traditions that the communication section deals with is the common practice of borrowing from money lenders to finance elaborate death feasts and funerals. These traditions can put families into debt for generations. One staff member mentions that prior to working for Tilonia he would have spent Rs 15,000 for his father's funeral. However, when his father died, he chose to spend Rs 1,000 and felt confident enough to stand by his new values. None of the staff practice the death feast tradition. Results are evident throughout all sections.

Since its inception, the Barefoot College has trained and put in the field:

- nearly 600 Barefoot mechanics, repairing and maintaining over 20,000 India Mark II hand pumps
- 20 Barefoot solar engineers who have solar electrified the College campus, 300 adult education centres in 6 states of India, 22 villages in Ladakh (11, 500 ft. in the Himalayas), 30 night schools for children
- Barefoot construction engineers have fabricated and installed over 50 geodesic domes in 5 states of India
- Barefoot communicators, using traditional media have travelled throughout Silora Block conveying relevant social messages
- Barefoot doctors and health care workers are being used extensively for preventive health care.



Replicating the Barefoot College approach

"The founders of the SWRC could hardly be accused of stacking the cards in favour of easy success for their experiment. Indeed, if it could be made to work under the rugged conditions in the Silora Block of Ajmer District it could probably work anywhere" wrote a research team that analyzed the SWRC during its early years.



There are very few written manuals at the Barefoot College. The solar section recently produced a non-technical manual for their training but view this as a small supplement to their practical, hands on training approach. Each section runs an informal training programme that is adapted to the trainee and built on the oral tradition of Rajasthan. No formal educational qualification is required. Anyone with an interest and aptitude qualifies for training. People learn by doing, at their own rate and as long as they are interested in being trained. Hand pump mechanics generally train at the Barefoot College for three months and then are given training in the area where they work. Night school teachers have an initial training period and then return to the campus for training every few months. There are no 'experts', simply people with greater experience than others and these are the trainers. Everyone, however, is seen as a contributor or teacher in a learning process. Village Committees work with the field centres and the staff assist them to understand and carry out their responsibilities. Anyone can reach the management of Tilonia with suggestions and ideas for change. This is actively encouraged through Tilonia's informal structure and the meetings held at Tilonia, field centres and the villages. Many of the staff have a history of working in a number of areas at the Barefoot College. They may work for some time with the medical section, then the accounts section and discover that the communication section really attracts them. The College promotes this fluidity amongst sections and this is one of the contributing factors to the low staff turn over. More than half of the staff have worked at the Barefoot College for ten years or longer.

Tilonia is conscious of how it grows. It has the capacity to grow quicker but has chosen not to. The main reason for this is that it does not want to lose its integrity and its adherence to its philosophy and values. Things can change superficially but Tilonia is interested in deep changes that contribute to building sustainable communities. A replication of Tilonia's programme needs to be radically enrooted to work. What aspects of the Barefoot College can then be shared with other organizations, the government, educators, administrators throughout India and other countries? Part of the answer to this can be found in the sub-centres which have been established in thirteen Indian states and in the Lok Jumbish and Shiksha Karmi programmes of the Rajasthan Government. It should be noted, however, that the Barefoot College staff resist the notion of replicating the Barefoot College as if it were a commodity that could be packaged and sold. They no longer write about their work as a development model that can be copied as they did in earlier documents and insist that the Barefoot College is a process. As such there are essential elements, some of which are intangible, which can only be carried into new organizations by people who are sensitive to them. Moreover, they feel that Tilonia's five non-negotiable values should be central in any venture which may have similar aims. There are several organizations, however, which have taken up Tilonia's message and adapted it to their cultural and socio-economic context.

SWRC-Leh, Ladakh

This sub-centre has close ties with SWRC-Tilonia because their solar and ground water teams interact constantly. The Director of this sub-centre, Phuntsog Wangchuk Kalon, is Ladakhi and sustains the Barefoot approach through training local youth in solar engineer and drilling teams. The demand for solar energy in the region is greater than the present capacity of the sub-centre. Despite this pressure to expand quickly, they are committed to working at a rate that maintains the quality of their work and the kind of development process they support. The staff carry out rigorous treks under arduous conditions to meet the energy and water needs of remote villages. Community participation is central to their approach just as it is in Tilonia.

SWRC-Daporijo

In operation for six years, this sub-centre is now beginning to call itself a Barefoot College. It is situated in the north-east of the country in one of the most remote and inaccessible states, Arunachal Pradesh. Appropriate technology, women's groups, handicrafts, health and education have been the focus of their work. Geodesic domes have been constructed as community centres and the staff have experimented with construction materials and methods that make dome construction more accessible to local people. They have solar electrified ten adult education centres and have set up demonstration units of pre cast drain channels for sanitation or minor irrigation and roof water harvesting systems. They are in the process of opening ten night schools for children. The Daporijo staff are concerned about the exploitation of tribal people as well as the natural resources of the region. They are facilitating the training of leaders who can represent and defend tribal interests and protect the environment.

RASTA/SWRC-Wyanad, Kerala

The Director of the Kerala sub-centre and her husband have years of experience at the Barefoot College. They established RASTA in the south of India in 1984 where they have concentrated on natural resource management which has generally been overlooked in a state where basic life indicators are relatively high for a large sector of the population. They have designed bio-gas and bio-mass plants that are shared with other organizations in the 'Tilonia family'. RASTA has been working on education with tribal groups and follows the Barefoot College model of night schools. They have programmes for women, health and sanitation. Water shed management programmes have been carried out in two areas and local

farmers have been organized to prevent sand mining from river beds and the building up of vegetation on river banks. RASTA has also been working with the M. S. Swaminathan Institute in Madras on a biodiversity project to preserve local seeds.

Shiksha Karmi

Shiksha Karmi's conception of education is based on the assumption that an agent of change, notably in the field of education, can work effectively only if he or she belongs to the same locality. This strategy is particularly important for remote and isolated villages where it is very difficult for an outsider to stay or to be accepted. According to the Rajasthan Shiksha Karmi 1994 Report "in such conditions education qualifications appear to be of lesser importance than the teacher's willingness and ability to function as a social worker".

The Shiksha Karmi Project was started in Rajasthan with the assistance of the Swedish International Development Agency (SIDA) to revitalize and expand Primary Education in remote villages of Rajasthan. It is an offshoot of the three experimental schools that were run by Tilonia from 1975-78. The project is now being implemented in sixty blocks. Shiksha Karmi has taken up many of Tilonia's innovations in education. The identification and selection of rural youth as teachers is undertaken jointly with SWRC education staff, field centre workers, the community and the Village Education Committee. The Shiksha Karmi project has adopted Tilonia's emphasis on appropriate learning with 70 per cent of the activities related to the local environment. Specific external activities like Bal Mela, Excursion, children's visits to other schools, parents' trips and the teacher's accountability to the community are all innovations that evolved through Tilonia. Supervision of schools aims to tighten the educational process and the teachers' skills. This supervision is not intrusive and is conducted in a participatory manner. The Shiksha Karmi day school teachers use models developed by Tilonia's night schools. This Barefoot approach means they are free to conceive their own books, songs and games to initiate the educational process. They are then backed up by the education staff, field centre workers and other teachers. Self-reliance lies at the basis of the teaching methodology and, although many Shiksha Karmi teachers do have higher educational qualifications than Tilonia's night school teachers, they are still called upon to draw inspiration from the local surroundings.

Lok Jumbish

Lok Jumbish literally means 'people's movement'. It is a project for Education for All in Rajasthan by the year 2000 through peoples' mobilization and participation. It is a joint project bringing together SIDA, the Government of India and the Government of Rajasthan. The main goals of Lok Jumbish are:

1. Universalization of Primary Education. This is viewed as a composite programme of access to primary education for all children up to 14 years of age; universal participation till they complete the primary stage; and universal achievement at least of the minimum levels of learning.

2. Provision of opportunities to maintain, use and upgrade education. Facilities for the development of skills, to all persons who are functionally literate and those who have received primary education.

3. Creation of necessary structures, and the setting in motion of processes, which can empower women and make education an instrument of women's equality.

4. Making necessary interventions, and creating circumstances, to enable the 'lower castes', the most deprived of the tribal people and the other poorest sections of society, advance towards equal participation in basic education.

5. Improving the content and process of education to relate it further to environment, culture and working and living conditions.

Much of the implementation of Lok Jumbish in the field is done by voluntary agencies. Each agency is entrusted with a cluster of villages where they are responsible for environment building, informing the village community about the programme, identifying and training core teams, assisting with school mapping, establishing field centres and supporting village education committees. Lok Jumbish has incorporated many aspects of the Barefoot College in its approach to community participation, field centres, teacher training, emphasis on gender and use of voluntary agencies. The Barefoot College also coordinates the programme in twenty villages.

Shiksha Karmi, Lok Jumbish and the Indian Government have all assimilated various components of the Barefoot College process with considerable success. It seems, however, that there is generally greater adherence to the five non-negotiable values of Tilonia when staff, who have worked at the Barefoot College, decide to establish their own centre. One of the values that changes with the government-run projects is that of austerity. While the spirit of volunteerism has been central to the Barefoot College and its sub-centres, this is not always the case in government bureaucracies. Shiksha Karmi teachers are paid a 'voluntary' wage, however, the urban-based trainers are not. This is due, in part, to the greater cost of living in the city and points to one of the advantages of voluntary agencies that are located in rural areas. The Section-in-Charge of the Barefoot College education, Teja Ram, believes that leadership should be the key to incorporating essential features of the Barefoot College in a new project. He feels that a project leader would have to be completely clear about his or her objectives and be answerable to the communities involved. He says "the overriding concern is to be able to understand the aspirations of rural communities, lead an austere life and have genuine interaction with people."

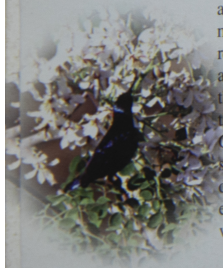




Conclusion



Tilonia is not totally self-sufficient in its financing as some of its funding is external. It has, however, diversified its funding base. The organization receives 40 per cent of its funds from Government sources and 40 per cent through foreign agencies. 20 per cent of the funds are generated through the sale of handicraft items and the installation of solar power packs. The funding to Tilonia from government grants is to carry out work that can be done more effectively than the State. The role of outside funding agencies is one of collaboration, networking and specific training. The agencies are in turn given regular feedback on their funding. This provides them with constant data and experience to influence and direct their policies and strategies. Groups such as the Save the Children Fund and the German Agro Action are particularly involved and are motivated to work with an organization such as the SWRC which tackles many of their concerns. These groups also work in joint workshops, training camps and visits to the organization to get first hand knowledge about the SWRC. They are interested in the collective strength of the organization as well as its programmes and strategies. External funding is, therefore, an opening for projects to learn about Tilonia. Some resources come from the sale of handicrafts, nationally and internationally. Some come from communities themselves. Germany's Agro Action recommends that those interested stop in to visit the Barefoot College when they are in India. Tilonia is self-sufficient in terms of its expertise in education and development. It is self-sufficient with respect to electrical power (solar) on the main campus and its water requirements.

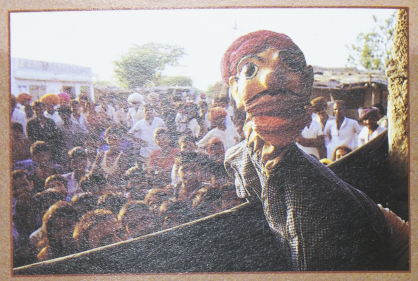


Power within Tilonia is shared democratically and this balance is respected. Barefoot College staff are convinced that projects involved in rural development must be based in a village working in true partnership with the poor. Fundamental changes in social and economic structures only come from living closely with people in their communities and understanding their culture. This, in turn, provides a basis for mutual learning and respect. It affords the opportunity to recognize skills and knowledge within the communities. The Barefoot College teaches the value of questioning assumptions regarding the role of education for development. It asks whether the overt and hidden curricula are developing the correct values. The College campus represents a model for educators to emulate. Few schools can claim to be so environmentally friendly in terms of energy, water and waste management. But more importantly the Barefoot College demonstrates the possibilities for working with rural communities to generate programmes for advancement. "Think globally, act locally" is a familiar phrase for many people. Societies and environments around the world are interconnected through their problems - increasing unemployment, urban overcrowding, escalating poverty, environmental degradation and reduced opportunities for youth. Tilonia tackles these issues at local level to have a global influence. It questions our assumptions regarding the role that education can play in building global sustainable societies. Are education programmes preparing people for sustainable livelihoods and lifestyles? That is, employment and lifestyles that do not exploit people nor the environment in this generation or future generations? Can we find more innovative ways to meet our basic needs? Have our definitions of experts and professionals led us to develop networks and systems that are more complex than they need to be? Have we marginalized people, their knowledge and skills in the process? Throughout the world, youths are leaving their rural communities to seek jobs in cities where unemployment is high. City infrastructures cannot sustain this influx of people. The Barefoot College demonstrates the possibilities of working with youth and the building of sustainable rural communities.

Tilonia is a genuine adherence to its philosophy and values. While some organizations may appear special on paper, they may not always work democratically (especially with respect to salary scales) and few could match Tilonia's belief in a simple, sustainable lifestyle. Many administrators prefer to live away from rural areas and believe in their work from afar. The sincerity and conviction of the Barefoot staff is very strong and quite moving to experience. As one staff member stated, "we have a collective charisma". The Barefoot College staff know that people are genuinely more important than money. A project may be unsuccessful in meeting some of its objectives, yet if it facilitates personal growth and well-being it is a success. Staff point to Tilonia's five non-negotiable values as the foundation for the Tilonia culture. It is perhaps these values that have attracted a particularly vibrant and creative staff. To some extent, Tilonia creates an artificial environment in which there is equality, mutual support and openness to creative expression. Throughout the world, many people's lives have either drifted from these values or have never experienced them. Tilonia offers the opportunity for people to connect with a profound experience of their own humanity and shows they can contribute to a society where education and development work hand in hand towards sustainability.

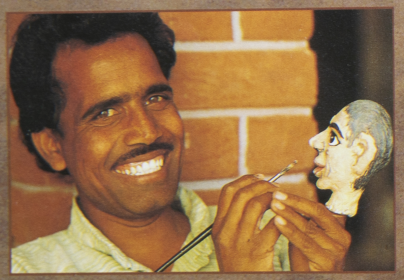


FEATURES
Making it work



● PUPPETRY

Jockim Cha Cha (joking uncle) is the colourful spokespuppet in a pantheon of puppets made by Tilonia's communication team. He introduces puppet shows, describes the moral of a story and generates discussion with the audience. Being a puppet, he gets away with saying controversial and sensitive things. Jockim Cha Cha and his puppet friends address issues of casteism, discrimination against women, problems with moneylenders, child marriage, alcohol abuse, injusticies against women, environmental degradation and much more. "Even when the audience is laughing", however, explains Bhanwar Ghopal, a member of the communication team, "they can be experiencing the pain of their predicament". The audience often asks for plays to be repeated.



The communication team prepares scripts for their puppet shows. They are always ready, however, to improvize depending on the issues that are most relevant to the village where they are performing. Puppetry has become an important component for the night school programme. The puppet-making process takes approximately five days. Newspapers are pounded into a pulp, mixed with water and flour from a local plant. This is used to shape the puppet's head. Once dry, the head is painted and its costume sewn by the communication team. Puppets made by the communication team are also sold in national exhibitions. It takes one month to train people in handling puppets and script writing. Synchronizing puppets with dialogue takes another month. Babulal and Ramniwas share the job of co-ordinating their team. "Puppet making absorbs me completely," says Babulal. "I am always looking for new ideas". Babulal has worked at the Barefoot College since 1983 and was a member of the communication team that travelled to Norway to perform for royalty.

STATISTICS ON RAJASTHAN



RAJASTHAN
Size: 342 239 sq km
Composition: 30 districts
Population: 44 million

SILORA BLOCK (in the district of Ajmer)
Size: 82 349 sq km
110 villages in Silora Block

BAREFOOT COLLEGE STATISTICS

The Barefoot College has a full time staff of 200 as well as 287 part time staff including 90 village level health workers, 82 day care workers and 115 night school teachers.

1993 - 170 staff
- 19% educated beyond secondary school
- 82% from Ajmer District
- most workers in 26-45 age group

● ORAL TRADITION AND KNOWLEDGE DIVERSITY

"Folk tradition is by itself a Barefoot College because people learn by doing and pass on their knowledge and skills from generation to generation." Ramniwas, Barefoot Communicator

The people of Rajasthan have developed a rich oral tradition over the centuries. Songs and stories are told in dialects that change about every 30 kilometres. Musicians regularly perform for religious festivals and family celebrations. Traditional skills and knowledge are passed down in an informal learning process. "Learning by doing" is the norm for those who apprentice in the arts, handicrafts and trades. Oral traditions, however, are fading and being replaced by television, music industries, mass production of textiles, shoes, clothing, household items, and so on. Artisans are turning to manual labour in order to support themselves. Formally educated youth are seeking jobs in the cities rather than learning the traditional skills of their parents. The Barefoot College is, therefore, working to support local artisans, documenting traditional knowledge and skills. They hold festivals to save folk traditions from extinction and have established training programmes to upgrade skills and teach new ones to women, men and youth. Their communication section has over 1,000 hours of video recordings with folk musicians. The night schools perpetuate local songs and stories in the curriculum. Village resource people contribute to the quality of education in the night schools. Many of the staff possess traditional skills such as miniature painting, homeopathy, iron smithing, tailoring, weaving, agriculture and animal husbandry.



Unfortunately, the Barefoot College staff are deeply concerned that their efforts alone are not enough to stem the momentum towards modern media, commercial products and the ultimate loss of local cultures. They feel that there is a cultural emergency in Rajasthan and that knowledge and skills that rest with the village elders will die with them. Within the next twenty years, they say, this vast wealth of knowledge and cultural diversity will be extinct. While some people may feel that this loss of diversity is offset by the benefits of modernization, the College staff see rising unemployment, loss of identity and self-esteem of rural youth, as a shift away from sustainable lifestyles and livelihoods. Modern technologies such as solar energy, improved leather tanning, and computers are embraced by the College as they contribute to building sustainable communities. The preservation of cultural diversity and different ways of knowing may prove to be as critical, if not more critical, than protecting bio-diversity.

FEATURES
Making it work

CHILDREN'S PARLIAMENT

The most perplexing and challenging, but important, of children's rights in the UN's Convention is the right of the child to participate. The SWRC has always valued and respected the opinions of children, and with the Bal Sansad or parliament they have a chance to get actively involved in the running of their schools. This includes planning and decision-making but the children bear their new and heavy responsibilities with ease and enthusiasm. For Tilonia, working with thousands of children over an area of 500 sq. km., the only reliable resources are the teachers, the children and their collective enthusiasm. Innovation is not only to impart reading and writing skills. It should not mean, for example, that children learn nine languages before the age of seven. For Tilonia, innovations serve to make children feel equal and responsible society members regardless of caste, gender or economic situation. Opening up children's minds to what is possible to them is the main objective. Working children contribute to their households and their family incomes but their contributions and opinions are not acknowledged. The Children's Parliament is one way of recognizing the fact that children's voices need to be heard. When people now ask "What's new with Tilonia's schools?" Staff often reply "children have begun to run them".

Last elections
The Formation of the New Cabinet : June 1, 1995
There were 17 Member of Parliament seats



2 parties - "Ujala" (light - as opposed to darkness) "Gawaal" (shepherd)

"Ujala" won 9 seats. "Gawaal" won 7 and there was 1 independent seat which, in true political style, was swallowed up by the "Ulaja" party.

Debate began over who would be the next Prime Minister. Two were in the running - Laxmi and Kana Ram. Laxmi had much in her favour, she was a girl and she was at the 3rd standard or level in school which would give her enough time to establish herself as Prime Minister. Kana Ram had been the ex-Prime Minister's right hand person and the Dairy Minister in the old cabinet. A boy, however, he stood less chance especially as he was from a party with 7 girls out of 9 members. He was also in the 5th standard and would be leaving school soon. Finally Laxmi was sworn in and a leader of the opposition nominated.

Some of the rules governing elections:

- Only children registered as voters are allowed to stand for elections or vote
- Candidates should know how to read and write
- Cabinet ministers should compulsorily be standard or level 3 and above - the same is true for Ministers of State but the rules can be bent if the candidates are girls
- 33 per cent of all seats are reserved for girls
- Nomination forms should be accompanied by identification cards and sanction letters from parents and the Shiksha Samitis or village committees
- Elections should be monitored by Shiksha Samitis in the respective villages

Duties of elected representatives

- To get fresh enrolments for the night schools
- To take attendance every day in the schools. This includes children and teachers as well
- To report on their visits to other night schools
- To write to the respective ministers and secretaries should any problem arise or come to their notice in a school
- To attend the meetings of the village Shiksha Samitis and their activities
- To be informed and report on the facilities (especially with regard to Health and Drinking Water) within their village
- To plan out a budget and submit expenses for the running of the Government
- To discuss and decide on all issues taken up at State Assemblies and in Parliament
- To take disciplinary action against any minister not attending meetings regularly
- To see that elections are conducted in all schools that may have missed out on them. This includes the schools opened after elections

Meetings are quite strenuous affairs where everyone is questioned on each of their activities. Laxmi is proving to be a charismatic leader and, for many, her election proves that things are going in the right direction - she belongs to a "scheduled caste" whereas the previous Prime Minister belonged to the Jat Community, a dominant caste. The children do not only limit themselves to discussions on their schools. They talk about their villages, water problems and attend the Shiksha Samiti meetings. Laxmi, when asked what school needs the most improvements says it is her own. Each minister is supposed to visit every school five times a month and after these visits, discussions are held on "was the teacher any good?" "How many children were there?" "Was the lighting good?" "Were the equipment and records in order?" The older children talk about installing hand pumps, building school walls and replacing teachers.

1995 ESCAP AWARD

In April 1996, the United Nations body ESCAP (The Economic and Social Commission for Asia and the Pacific) awarded the Barefoot College its 1995 award. The SWRC was chosen out of 55 applications from 19 countries for its exemplary achievement in human resource development. The independent international jury commended the College for its innovative programmes to promote employment for rural youth and its efforts to bring education to the marginalized through self-help, basic skills and the belief that villagers can train their peers.

Education for All, Making it Work is a major international UNESCO/UNICEF programme to collect, analyze and promote successful basic education projects in the developing world.

Previous issues in the series:

No. 1
All Children Can Learn
Chile's 900 Schools Programme for the Underprivileged, 1993 (Arabic, English*, French, Spanish*)

No. 2
In our own Hands
The story of Saptagram, a women's self-reliance movement in Bangladesh, 1994 (English*, French)

No. 3
Within Reach
The story of PROPEL, a non-formal education project for rural children in India, 1994 (Arabic, English*, French*)

No. 4
Blazing the Trail
The Village Schools of Save the Children/USA in Mali 1994 (English*, French*)

No. 5
On the Right Track
Servol's early childhood and adolescent development programmes in Trinidad and Tobago, 1994 (English, French)

No. 6
Breaking Through
TOSTAN's non-formal basic education programme in national languages in Senegal, 1995 (English, French)

No. 7
Voices across the Hills
Thailand's Hill Areas Education Project, 1995 (English, French)

No. 8
Daughters of the Earth
Skills-based Literacy Programme for Women, China, 1995 (Chinese, English, French)

No. 9
The Children of the Nile
The Community Schools Project in Upper Egypt, 1995 (English, French)

No. 10
Of Copper and Fire
The Self-help Action Plan for Education (SHAPE), Zambia, 1996 (English, French)

** Out of print*

Bibliography

Carr, Marilyn, **The Barefoot Book**, Intermediate Technology Publications, London, 1989.

Barefoot College Reports.

1993 Lok Jumbish Report.

Rajasthan Shiksha Karmi Report, 1994.

Participatory Research Study with Barefoot College Staff.

Education for All, The Indian Scene, Government of India, 1993.

Kale, P. & Coombs, P. H., **Social Work and Research Centre - An Integrated Team Approach in India**, International Council of Educational Development, Connecticut, USA, 1978.

Roy, Aruna, **Tilonia's Night Schools - An Alternative Approach**, SWRC, 1982.

Supervising editors:
Dieter Berstecher
Rosa Maria Torres

Editor:
Benedict Faccini

Art Direction:
Jacques Zahles
HEXA Graphic

Photographs :
Ian Murray

Illustrations :
Bhanwar Gopal

Photo-engraving:
Ink Position Photogravure, France

Printed by:
Marco Gráfico, Madrid, Spain

The opinions expressed in this document are those of the author and not necessarily those of UNESCO or UNICEF.

For further information about this project, please contact:

BAREFOOT COLLEGE
SWRC - Tilonia
305 816 Madanganj
District Ajmer
Rajasthan, India

Fax: 91 14 63 88 06

ACKNOWLEDGEMENTS

The Social Science and Humanities Research Council of Canada
The Shastri Indo-Canadian Institute
The staff of the college and people of Tilonia

Making it work



Making it work

Tilonia is just one of many villages in the arid State of Rajasthan, India - the "Land of Drought and Colour". This ordinary village, however, has many extraordinary qualities. It is home to an active voluntary agency - The Social Work and Research Centre (SWRC). Set up in 1972, this agency works with local teachers, health care workers, solar engineers and hand pump mechanics in a comprehensive development plan with the rural poor, for the rural poor. Over the years, it has grown to bring educational services, safe drinking water, health care and employment to the villages around. It has set up 150 night schools in 89 villages for children who work during the day. To date 15,000 children have passed through these schools, where village culture, history and skills appropriate to the regional context are privilieged.

The project's philosophy is based on the belief that villagers can identify and solve their own problems and people's worth should be judged by their practical skills, not the paper qualifications they hold. This has meant the SWRC has developed a "barefoot approach", in which the poor take care of their own needs, employing their own knowledge systems. The SWRC in fact, has come to be known as the Barefoot College.

Attacking global problems at local level, the Barefoot College has generated a whole host of innovations from a Children's Parliament, puppet shows for transmitting relevant social messages to a solar generated computer system. Its success in bringing learning opportunities to isolated rural villages has influenced many a programme, such as the Lok Jumbish and Shiksha Karmi projects and sub-centres in other Indian States. The SWRC was awarded the 1995 ESCAP (The Economic and Social Commission for Asia and the Pacific) prize for its innovative work in the field of rural self-reliance and youth technical training.

ISSN 1020-0800

© UNESCO, 1996

501